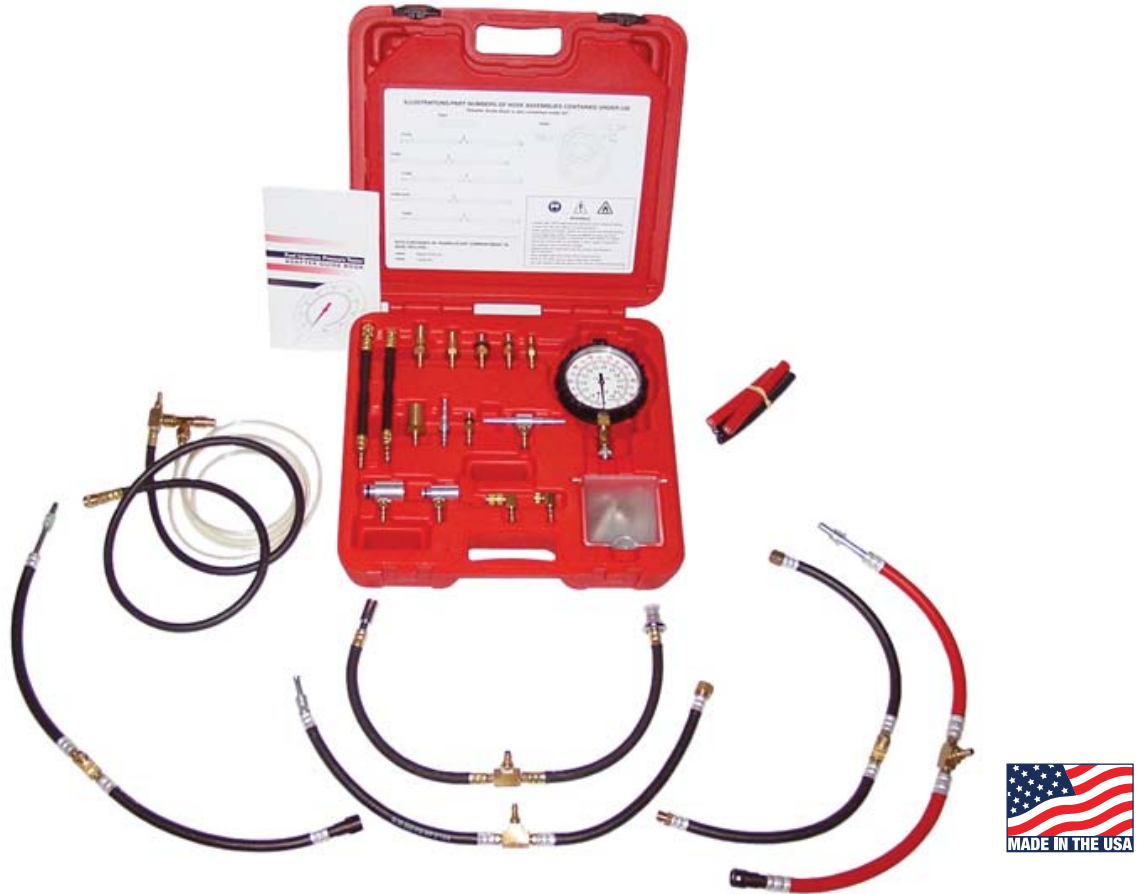




ATD-5650 MASTER GLOBAL FUEL INJECTION PRESSURE TEST KIT OWNER'S MANUAL



Features:

- Covers all major model vehicle platforms, domestic and foreign, 1988 to present (does not include CIS/TBI)
- Test gauge assembly disconnects from test hose and valve assembly for easier storage and improved gauge protection
- The redesigned fuel line tee can accommodate 3/8" hose sizes in addition to 1/4" and 5/16"
- Contains longer tee adapter to cut test hoses for easier connections
- Neoprene boot for ultimate protection of test gauge and vehicle finish
- Neatly organized molded storage case with marked adapters for easy cross-reference to the adapter guidebook
- Case contains a hinged lid compartment to easily store hose assemblies
- In-depth guidebook gives detailed vehicle model adapter information

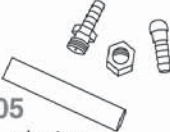

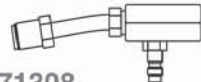




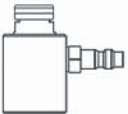










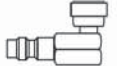




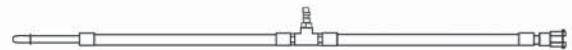

 WARNING  ADVERTENCIA  ADVERTISSEMENT

 **WARNING** 

WARNING: This product contains chemicals, including lead, known to the State of California to cause cancer, birth defects or other reproductive harm. **Wash hands after handling.**

Made in The USA to ATD Tools, Inc. Specifications

Additional Fuel Injection Test Adapters

 71305 Volvo adapter; 14mm LH Jetronic	 71306 11mm adapter (with hold down bolts)	 71308 M14-1.50 3/8" inverted flare male and female connections	 71314 Ford CFI adapter, 5/16" quick disconnects	 71317 Manifold w/ QC plug for 5/16" and 1/4" ID hose	 71318 Standard Schrader hose assembly with QC plug	 71319 Small Schrader hose assembly with QC plug
 71321 16mm adapter (with hold down bolts)	 71328 1/4" hose barb with QC plug	 74426 M12-1.00 Honda pulse dampener adapter	 74431 Banjo bolt M6-1.00 with o-ring	 74432 Banjo bolt M8-1.00 with nylotron washer	 74433 Banjo bolt M10-1.00 with nylotron washer	 74434 Banjo bolt M12-1.25 with nylotron washer
 74435 Banjo bolt M12-1.50 with nylotron washer	 74471 M14-1.50 Banjo bolt assembly	 74851 Deadhead pressure adapter 1/4", 5/16", 3/8" ID hose	 74852 Standard schrader right angle adapter w/ QC plug	 74853 Small Schrader right angle adapter w/ QC plug	 74499 1/4" quick disconnect hose assembly	
 71313 Ford EFI spring lock adapter w/ QC plug				 71329 M14 ball seat connection: Audi/Volvo/VW hose assembly		
 71330 M14 inverted flare connection: Toyota/Geo hose assembly		 74484 5/16" quick disconnect hose assembly with QC plug: Chrysler/Ford		 74485 3/8" quick disconnect hose assembly with QC plug: GM		

Please visit your local tool distributor for info on adapters not included in your set.

Safety Information

Important Safety Instructions

This manual contains important safety and operating instructions for the fuel injection pressure test kit and adapter. Refer to the information in this manual often for safe operation.

Read All Instructions

Read all instructions in the manual. Read, understand and follow all safety messages and instructions in this manual and on the test equipment. Safety messages in this section of the manual contain a signal word, a three-part message, and, in some instances, an icon. An icon, when present, gives a graphical description of the potential hazard.

Warning



DO NOT use this kit to test direct injected engine line pressure between the high pressure pump and injectors, as the high pressure (1500 to 3000 psi) will cause failure of the hoses and/or gauge. Use an appropriate scan tool to



access direct injection fuel pressure information using the On Board Diagnostics system.



Save These Instructions



Pretest System Checks

The following basic checks should be performed, and any detected faults corrected, before a fuel system test is performed:

- A. Look for broken or loose fuel lines (metal or rubber).
- B. Make sure fuel tank has sufficient fuel (do not rely on fuel gauge).
- C. Check for water or other contaminants in fuel.
- D. Check condition of fuel system related fuses.
- E. Check condition of fuel tank venting systems.
- F. Check condition of fuel tank filler cap.

Electrical System

- A. If engine won't start, check for ignition spark using a test plug. If no spark, repair ignition system. The ignition fires the injector on most fuel injection systems so that if there is no spark plug firing, there will be no injector firing.
- B. Observe check engine lamps or other computer fault indicators.
- C. Look for ignition wires broken, disconnected or arcing.
- D. Look for distributor cap or rotor disconnected or arcing.
- E. Check for component grounds loose or corroded.
- F. Look for disconnected electrical components.

Battery & Charging System

- A. Check battery condition. A weak battery will not ensure proper pump delivery or injector triggering. Should be over 12 volts.
- B. Check basic operation of charging system.
- C. Look for loose or corroded battery cables.

Miscellaneous

- A. Check vacuum lines for loose or disconnected lines.
- B. Look for water leaks.
- C. Look for excessive oil leaks.
- D. Listen for any audible air leaks, unusual noises, fuel pump buzz (a noisy pump may not be an indication of poor operating condition), engine rattles or knocks.
- E. Check valve timing and adjustment.

Procedure To Relieve Fuel System Pressure

1. Do not smoke.
2. Wear a pair of safety glasses.
3. Keep a dry chemical (Class B) fire extinguisher near you.
4. Release gas cap with ignition off.
5. Disable fuel pump as specified per manufacturer's service manual.
6. Some vehicles may have two fuel pumps. Make sure both are disabled.
7. On some vehicles, a satisfactory method of disabling the fuel pump(s) is to remove the fuel pump fuse(s). But on other vehicles, removing the fuse(s) disables the fuel injectors or ignition system, so another disabling method must be used. Refer to the manufacturer's service manual.
8. Turn the ignition key on and start the engine.
9. Run the engine until it stalls.
10. Try to restart the engine for 3 - 5 seconds. For cars with inertia switch pressure relief, engage starter 15 seconds to relieve fuel pressure.
11. Turn ignition key off.

Typical Fuel Injection Pressure Test (Non-Direct Injected Vehicles)

This kit is designed to test only the fuel feed line pressure to the injectors in multiport systems OR the fuel feed line to the high pressure pump in direct injected systems (100 psi or less). Before making a test connection, understand what the typical pressure is in the line you desire to test.

All pressure tests should be made at idle on the high pressure side of the system.

1. With engine off, locate fuel pressure port (Schrader Valve) and attach fuel pressure gauge. If no Schrader Valve is provided and system must be opened, residual pressure must be released before fittings are loosened to keep gasoline from spraying all over, possibly causing eye injury or a fire. See the PROCEDURE TO RELIEVE FUEL SYSTEM PRESSURE (above) and follow instructions. Connect tester using the correct adapter and access point. Always wrap a shop towel around fitting before loosening.
2. If the test connection requires use of a banjo bolt adapter, note that these are supplied for use with standard banjo fittings. If the vehicle to be tested uses a non-standard banjo fitting, more than one washer may be needed on either or both sides of the banjo fitting.
3. With gauge connected or teed into system using proper adapters, reactivate fuel pump, start the engine and check for leaks. If no leaks are detected, observe gauge. Pressure should rise to slightly above operating pressure and then stabilize at operating pressure (as per manufacturer's specifications). See our adapter applications and specifications beginning on the next page.
4. Start engine. If an adjustable fuel pressure regulator is used, pressure should be maintained during running. If a compensating fuel pressure regulator is used, pressure should drop approximately 8-9 PSI, depending on manifold vacuum.
5. If pressures are acceptable, some manufacturers also require a flow test. If so, at this point, open the fuel system into a graduated plastic container and observe flow rate (example: one pint/15 seconds). Close system.
6. Turn key off and observe residual pressure. Some manufacturers prescribe a minimum holding time.
7. In conjunction with an injector pulse tester, turn key on, observe pressure, pulse one injector, observe pressure drop, turn key off, move tester to next injector, turn key on, observe pressure, pulse injector, observe drop, turn key off, continue with remaining injectors. CAUTION: Do not repeat this test more than manufacturer's recommendations. Flooding of engine may occur.
8. Deactivate fuel pump and relieve fuel system if necessary. With key off, put bleed-off tubing in a fuel can and press bleed-off valve. If your tester has no bleed-off valve assembly, wrap rags around connections and release slowly. A bleed-off assembly can be purchased from your professional tool supplier.
9. Remove tester and reconnect all lines.
10. Start engine and check for leaks.
11. Remove fuel from all hoses. If fuel remains in gauge hose assembly, connect the smallest banjo bolt adapter into the quick coupler over a fuel container. Hold gauge above hose and fuel will flow into the fuel can.

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
ACURA						
Acura	CL	97	2.2	I-4	74431	
Acura	CL	98	2.3	I-4	74435	
Acura	CL	97-99	3.0	V-6	74435	
Acura	CL, S-TYPE	01-03	3.2	V-6	74426, 74484	
Acura	Integra	86-96	all	I-4	74431	
Acura	Integra	97-01	1.8	I-4	74435	
Acura	ILX	13	2.0	I-4	74499	
Acura	ILX	13	2.4	I-4	74484	
Acura	Legend	86-95	all	V-6	74431	
Acura	MDX	01-05	3.5	V-6	74426	
Acura	MDX	06-12	3.7	V-6	74426	
Acura	NSX	91-05	all	V-6	74431	
Acura	RDX	07-12	2.4	I-4	74484	
Acura	RDX	13	3.5	V-6	74484	
Acura	RL	09-13	3.7	V-6	74484	
Acura	RSX	02-06	2.0	I-4	74484	
Acura	SLX	96-99	all	V-6	71317	
Acura	TL	95-98	2.5	I-5	74431, 74435	
Acura	TL, S-TYPE	96-08	3.2	V-6	74426, 74484	
Acura	TL, S-TYPE	07-13	all	V-6	74484	
Acura	TSX	04-13	2.4	I-4	74484	
Acura	TSX	10-13	3.5	V-6	74484	
Acura	Vigor	92-94	2.5	I-5	74431	
Acura	ZDX	10-13	3.7	V-6	74484	
ALPHA ROMEO						
Alfa Romeo	Spider	84-95	all	I-4	71317	
Alfa Romeo	164, Milano	84-95	all	V-6	71317	
AUDI						
Audi	80	88-92	all	I-4	74435	
Audi	90	88-91	all	I-5	74435	
Audi	90	93-95	2.8	V-6	71305, 71329	
Audi	100	89-91	2.3	I-5	74435	
Audi	100	92-94	2.8	V-6	71305, 71329	
Audi	200	89-91	2.2	I-5	74435	
Audi	A3	06-13	2.0 T	I-4	74484	

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Audi	A3	06-09	3.2	V-6	74484	
Audi	A4	96-05	1.8 T	I-4	71305, 71329	
Audi	A4	05-13	2.0 T	I-4	71317	
Audi	A4	96-01	2.8	V-6	71305, 71329	
Audi	A4	02-06	3.0	V-6	71305, 71329	
Audi	A4	06-09	3.2	V-6	71305, 71329	
Audi	A5	10-13	2.0 T	I-4	71317	
Audi	A5	08-10	3.2	V-6	71305, 71329	
Audi	A6	00-04	2.7 T	V-6	71305, 71329	
Audi	A6	95-01	2.8	V-6	71305, 71329	
Audi	A6	02-05	3.0	V-6	71305, 71329	
Audi	A6	06-11	3.2	V-6	71305, 71329	
Audi	A6	09-10	3.0 SC	V-6	74484	
Audi	A6	00-11	4.2	V-8	71305, 71329	
Audi	A7	12-13	3.0 SC	V-8	74484	
Audi	A8	13	3.0 SC	V-8	74484	
Audi	A8	97-12	4.2	V-8	71305, 71329	
Audi	A8	05-09	6.0	W-12	71305, 71329	
Audi	A8	12-13	6.3	W-12	71317	
Audi	Q5	11-12	2.0 T	I-4	74484	
Audi	Q5	09-12	3.2	V-6	71305, 71329	
Audi	Q7	11-13	3.0 SC	V-6	74484	
Audi	Q7	07-10	3.6	V-6	71305, 71329	
Audi	Q7	07-10	4.2	V-8	71305, 71329	
Audi	S4	00-02	2.7 T	V-6	71305, 71329	
Audi	S4	10-13	3.0 SC	V-6	74484	
Audi	S4	04-09	4.2	V-8	71305, 71329	
Audi	S5	10-13	3.0 SC	V-6	74484	
Audi	S5	08-12	4.2	V-8	71305, 71329	
Audi	S6	02-04	4.2	V-8	71305, 71329	
Audi	S6	07-11	5.2	V-10	71305, 71329	
Audi	S8	13	4.0 T	V-8	71317	
Audi	S8	01-03	4.2	V-8	71305, 71329	
Audi	S8	07-09	5.2	V-10	71305, 71329	
Audi	TT	00-07	1.8 T	I-4	71305, 71329	
Audi	TT	08-10	2.0 T	I-4	71317	

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Audi	TT	12-13	2.5 T	I-5	71317	
Audi	TT	04-09	3.2	V-6	74484	
BMW						
BMW		75-95	all	all	71317	
BMW		96-10	all	all	74484	71319, 74853
BMW	1 Series	08-13	3.0	I-6	74484	
BMW	1 Series	08-13	3.0 T	I-6	74484	
BMW	3 Series	06-11	3.0	I-6	74484	
BMW	3 Series	06-11	3.0 T	I-6	74484	
BMW	3 Series	12-13	2.0 T	I-4	74484	
BMW	3 Series	12-13	3.0	I-6	74484	
BMW	3 Series	12-13	3.0 T	I-6	74484	
BMW	5 Series	12-13	2.0 T	I-4	74484	
BMW	5 Series	10-11	3.0	I-6	74484	
BMW	5 Series	10-13	3.0 T	I-6	74484	
BMW	5 Series	10-13	4.4 T	V-8	74484	
BMW	5 Series	10	4.8	V-8		71319, 74853
BMW	6 Series	12-13	3.0 T	I-6	74484	
BMW	6 Series	12-13	4.4 T	V-8	74484	
BMW	6 Series	10	4.8	V-8		71319, 74853
BMW	7 Series	11-13	3.0 T	I-6	74484	
BMW	7 Series	09-13	4.4 T	V-8	74484	
BMW	7 Series	08	4.8	V-8		71319, 74853
BMW	7 Series	10-13	6.0 T	V-12	74484	
BMW	M3	95-06	all	I-6	74484	71319, 74853
BMW	M3	07-13	all	V-8	74484	71319, 74853
BMW	7,8 series	88-10	all	all	71317	
BUICK						
Buick	all, except TBI	84-10	all	all		71318, 74852
Buick	Century	93-96	2.2	I-4	74485	
Buick	Century	97-05	3.1	V-6	74485	
Buick	Enclave	08-12	3.6	V-6		71318, 74852
Buick	LaCrosse	10-13	2.4	I-4		71318, 74852
Buick	LaCrosse	10	3.0	V-6		71318, 74852
Buick	LaCrosse	10-13	3.6	V-6		71318, 74852
Buick	Lucerne	06-11	3.8	V-6		71318, 74852

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Buick	Lucerne	06-11	4.6	V-8		71318, 74852
Buick	Rainier	04-07	4.2	I-6	74485	
Buick	Regal	11-13	2.0 T	I-4		71318, 74852
Buick	Regal	11-13	2.4	I-4		71318, 74852
Buick	Rendezvous	02-07	3.6	V-6		71318, 74852
Buick	Roadmaster	91-96	all	V-8	74485	
Buick	Skylark	95-98	all	I-4	74485	
Buick	Terraza	41401.00	3.5	V-6		71318, 74852
CADILLAC						
Cadillac	all, except TBl	80-10	all	all		71318, 74852
Cadillac	ATS	13	2.0 T	I-4		71318, 74852
Cadillac	ATS	13	2.5	I-4		71318, 74852
Cadillac	ATS	13	3.6	V-6		71318, 74852
Cadillac	CTS	10-13	3.0	V-6		71318, 74852
Cadillac	CTS	09-13	3.6	V-6		71318, 74852
Cadillac	CTS	09-13	6.2 SC	V-8		71318, 74852
Cadillac	Escalade	06-13	6.2	V-8		71318, 74852
Cadillac	SRX	10-11	2.8 T	V-6		71318, 74852
Cadillac	SRX	10-11	3.0	V-6		71318, 74852
Cadillac	SRX	04-13	3.6	V-6		71318, 74852
Cadillac	SRX	04-09	4.6	V-8		71318, 74852
Cadillac	STS	05-11	3.6	V-6		71318, 74852
Cadillac	STS	06-09	4.4 SC	V-8		71318, 74852
Cadillac	STS	04-09	4.6	V-8		71318, 74852
Cadillac	XLR	06-09	4.4 SC	V-8		71318, 74852
Cadillac	XLR	04-09	4.6	V-8		71318, 74852
Cadillac	XTS	13	3.6	V-6		71318, 74852
CHEVROLET						
Chevrolet	all, except TBl	85-10	all	all		71318, 74852
Chevrolet	Tracker	98-04	all	I-4	74471	
Chevrolet	Tracker, Metro, Sprint	87-10	all	I-4	71317	
Chevrolet	Nova, Spectrum	87-89	all	I-4	74432	
Chevrolet	Prizm	98-02	all	I-4	74484	
Chevrolet	Prizm	90-04	all	I-4	74485	

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Chevrolet	Beretta	92-96	2.2	I-4	74485	
Chevrolet	Camaro	10-13	3.6	V-6		71318, 74852
Chevrolet	Camaro	10-13	6.2	V-8		71318, 74852
Chevrolet	Caprice	12-13	3.6	V-6		71318, 74852
Chevrolet	Caprice	11-13	6.0	V-8		71318, 74852
Chevrolet	Captiva Sport	12-13	2.4	I-4		71318, 74852
Chevrolet	Captiva Sport	12-13	3.0	V-6		71318, 74852
Chevrolet	Cavalier	92-03	all	I-4	74485	
Chevrolet	Cobalt	06-11	all	I-4	74484	
Chevrolet	Corsica	90-96	all	I-4	74485	
Chevrolet	Corvette	97-13	all	V-8		71318, 74852
Chevrolet	Cruze	11-13	1.4 T	I-4		71318, 74852
Chevrolet	Cruze	11-13	1.8	I-4		71318, 74852
Chevrolet	HHR	06-11	all	I-4		71318, 74852
Chevrolet	Impala	12-13	3.6	V-6		71318, 74852
Chevrolet	Impala	06-11	5.3	V-8		71318, 74852
Chevrolet	Lumina	92-93	all	I-4	74485	
Chevrolet	Malibu	97-98, 04	all	I-4	74485	
Chevrolet	Malibu	13	2.0 T	I-4		71318, 74852
Chevrolet	Malibu Classic	08	2.2	I-4		71318, 74852
Chevrolet	Malibu	08-13	2.4	I-4		71318, 74852
Chevrolet	Malibu	13	2.5	I-4		71318, 74852
Chevrolet	Malibu	08-10	3.5	V-6		71318, 74852
Chevrolet	Malibu	08-12	3.6	V-6		71318, 74852
Chevrolet	Sonic	12-13	1.4 T	I-4		71318, 74852
Chevrolet	Sonic	12-13	1.8	I-4		71318, 74852
Chevrolet	Spark	13	1.2	I-4		71318, 74852
Chevrolet	S10 Blazer, Pickup	94-03	all	I-4	74485	
Chevrolet	TrailBlazer	02-07	4.2	I-6	74485	
Chevrolet	Truck	99-13	4.3	V-6		71318, 74852
Chevrolet	Truck	99-13	4.8	V-8		71318, 74852
Chevrolet	Truck	99-13	5.3	V-8		71318, 74852
Chevrolet	Truck	99-13	6.0	V-8		71318, 74852
Chevrolet	Truck	99-13	6.2	V-8		71318, 74852
Chevrolet	Truck	99-07	8.1	V-8		71318, 74852

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Chevrolet	Volt	11-13	1.4	I-4		71318, 74852
CHRYSLER						
Chrysler	all, except TBl	84-10	all	all		71318, 74852
Chrysler	200	11-13	2.4	I-4	74484	
Chrysler	200	11-13	3.6	V-6	74484	
Chrysler	300	05-10	all	V-6	74484	
Chrysler	300	11-13	3.6	V-6	74484	
Chrysler	300	05-13	all	V-8	74485	
Chrysler	300M	99-04	3.5	V-6	74484	
Chrysler	Aspen	07-09	4.7	V-8	74484	71318, 74852
Chrysler	Aspen	07-09	5.7	V-8	74484	71318, 74852
Chrysler	Cirrus	95-00	2.5	V-6	74484	
Chrysler	Concorde	98-04	2.7	V-6	74484	
Chrysler	Concorde	03-04	3.5	V-6	74484	
Chrysler	Conquest TSi	88-89	2.6	I-4	74435	
Chrysler	Crossfire	05-08	3.2	V-6		71318, 74852
Chrysler	Grand Voyager	00	3.0	V-6	74484	
Chrysler	Laser	84-86	all	I-4	71317	
Chrysler	LeBaron	84-95	all	I-4	71317	71318, 74852
Chrysler	LeBaron	84-95	3.0	V-6	74484	
Chrysler	New Yorker	88-89	3.0	V-6	71317	
Chrysler	Pacifica	04-06	3.5	V-6	74484	
Chrysler	Pacifica	07-08	3.8	V-6	74484	
Chrysler	Pacifica	07-08	4.0	V-6	74484	
Chrysler	PT Cruiser	01-09	all	I-4	74484	
Chrysler	Sebring	07-10	2.4	I-4	74484	
Chrysler	Sebring	95-00	2.5	V-6	71321, 74484	
Chrysler	Sebring	01-05	2.7	V-6	74484	
Chrysler	Sebring	01-05	3.0	V-6	71321	
Chrysler	TC	89-91	3.0	V-6	74484	
Chrysler	Town & Country	94-10	all	V-6	74484	
Chrysler	Town & Country	11-13	3.6	V-6	74484	
DAEWOO						
Daewoo	all	99-02	all	I-4		71318, 74852

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
DAIHATSU						
Daihatsu	Charade	88-92	1.0	I-3	74435	
Daihatsu	Charade	88-92	1.3	I-4	74435	
DODGE						
Dodge	all, except TBI	84-10	all	all		71318, 74852
Dodge	600	84-88	all	I-4	71317	71318, 74852
Dodge	Pickup	84-93	3.9	V-6	71317	
Dodge	Pickup	84-93	all	V-8	71317	
Dodge	1500, 2500, 3500 Ram Pickup	97	all	V-8	74484	
Dodge	Aries America	88-89	all	I-4	71317	
Dodge	Avenger	08-13	2.4	I-4	74484	
Dodge	Avenger	95-00	2.5	V-6	71321	
Dodge	Avenger	08-10	2.7	V-6	74484	
Dodge	Avenger	08-10	3.5	V-6	74484	
Dodge	Avenger	11-13	3.6	V-6	74484	
Dodge	Caliber	07-12	all	I-4	74484	71318, 74852
Dodge	Caravan	88-90	2.5	I-4	71317	71318, 74852
Dodge	Caravan	91-07	2.4, 2.5	I-4	74484	
Dodge	Caravan	87-94	3.0	V-6	71317	
Dodge	Caravan	95-00	3.0	V-6	74484	
Dodge	Colt	84-94	all	I-4	74435	
Dodge	Challenger	09-10	3.5	V-6	74484	
Dodge	Challenger	11-13	3.6	V-6	74484	
Dodge	Challenger	09-13	all	V-8	74484	71318, 74852
Dodge	Charger	06-10	3.5	V-6	74484	
Dodge	Charger	11-13	3.6	V-6	74484	
Dodge	Charger	06-13	all	V-8	74484	71318, 74852
Dodge	Dart	13	1.4 T	I-4	74484	
Dodge	Dart	13	2.0	I-4	74484	
Dodge	Dart	13	2.4	I-4	74484	
Dodge	Dakota	89-95	2.5	I-4	71317	
Dodge	Dakota	88-91	3.9	V-6	71317	
Dodge	Dakota	90-92	5.2	V-8	71317	
Dodge	Daytona	84-93	2.2	I-4	71317	71318, 74852
Dodge	Daytona	86-91	2.5	I-4	71317	71318, 74852

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Dodge	Daytona	91-93	2.5	I-4	74484	
Dodge	Daytona	90-93	3.0	V-6	71317	
Dodge	Durango	11-13	3.6	V-6	74484	
Dodge	Durango	11-13	5.7	V-8	74484	71318, 74852
Dodge	Dynasty	88-90	2.5	I-4	71317	
Dodge	Dynasty	90-93	2.5	I-4	74484	
Dodge	Dynasty	88-93	3.0	V-6	71317	
Dodge	Grand Caravan	88-94	3.0	V-6	71317	
Dodge	Grand Caravan	94-10	3.0	V-6	74484	
Dodge	Grand Caravan	11-13	3.6	V-6	74484	
Dodge	Grand Caravan	94-10	3.8	V-6	74484	
Dodge	Intrepid	98-04	2.7	V-6	74484	
Dodge	Journey	09-13	2.4	I-4	74484	
Dodge	Journey	09-10	3.5	V-6	74484	
Dodge	Journey	11-13	3.6	V-6	74484	
Dodge	Lancer	85-89	all	I-4	71317	71318, 74852
Dodge	Magnum	05-08	all	V-6	74484	
Dodge	Magnum	05-08	5.7	V-8	74485	
Dodge	Mini Ram Van	84-88	all	I-4	71317	
Dodge	Monaco	90-92	3.0	V-6	74485	
Dodge	Neon	95-05	2.0	I-4	74484	71318, 74852
Dodge	Nitro	07-11	3.7	V-6	74484	71318, 74852
Dodge	Nitro	07-11	4.0	V-6	74484	
Dodge	Omni	88-90	all	I-4	71317	
Dodge	Raider	87-89	2.6	I-4	71317	
Dodge	Raider	87-89	3.0	V-6	74435	
Dodge	Ram 50 Pickup	84-93	all	I-4	74435	
Dodge	Ram	02-10	3.7	V-6	74484	71318, 74852
Dodge	Ram	02-10	all	V-8	74484	71318, 74852
Dodge	Ram	94-08	8.0	V-10	74484	71318, 74852
Dodge	Ramcharger	88-92	all	V-8	71317	
Dodge	Shadow	87-90	all	I-4	71317	
Dodge	Shadow	90-94	2.2	I-4	74484	
Dodge	Shadow	90-94	2.5	I-4	74484	71318, 74852
Dodge	Shadow	87-94	3.0	V-6	71317	
Dodge	Spirit	89-90	all	I-4	71317	

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Dodge	Spirit	89-90	all	V-6	71317	
Dodge	Spirit	91-95	all	I-4	74484	
Dodge	Spirit	91-95	all	V-6	74484	
Dodge	Stealth	91-96	3.0	V-6	71321	
Dodge	Stratus	95-00	2.5	V-6	74484	
Dodge	Stratus	01-04	2.7	V-6	74484	
Dodge	Stratus	01-04	3.0	V-6	74484	
EAGLE						
Eagle	Summit, Talon, Vista	89-99	all	I-4	74435	
Eagle	Medallion	88-89	2.2	I-4	71317	
Eagle	Premier	88-92	all	I-4	74485	
Eagle	Premier	88-92	all	V-6	74485	
Eagle	Vision	93-97	all	V-6		71318, 74852
FIAT						
Fiat	500	12-13	1.4	I-4	74484	
FORD						
Ford	all, except TBl	83-10	all	all		71319, 74853
Ford	Aspire	94-97	1.3	I-4	71317	
Ford	Bronco	85-86	5.0	V-8	71313	
Ford	Contour	95-00	2.0	I-4	71313	
Ford	Contour	95-00	2.5	V-6	71313	
Ford	C-MAX	13	2.0	I-4	74484	
Ford	Crown Victoria	92-12	4.6	V-8	71313	
Ford	150, 250, 350 Econoline	86	5.0	V-8	71313	
Ford	Edge	12-13	2.0 T	I-4	74484	
Ford	Edge	07-13	3.5	V-6	74485	
Ford	Edge	11-13	3.7	V-6	74485	
Ford	Escape	01-05	2.0	I-4	71313	
Ford	Escape	06-08	2.3	I-4	74484	
Ford	Escape	09-13	2.5	I-4	74484	
Ford	Escape	01-12	3.0	V-6	74484	
Ford	Escape	13	1.6 T	I-4	74484	
Ford	Escape	13	2.0 T	I-4	74484	
Ford	Escort	87-90	1.9	I-4	71313	

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Ford	Escort	01-03	2.0	I-4	71313	
Ford	EXP	84-85	1.6	I-4	71313	
Ford	Explorer	12-13	2.0 T	I-4	74484	
Ford	Explorer	11-13	3.5	V-6	74485	
Ford	Explorer	13	3.5 T	V-6	74485	
Ford	Explorer	97-10	4.0	V-6	74484	
Ford	Explorer	02-10	4.6	V-8	71313	
Ford	Expedition	97-13	all	V-8	71313	
Ford	150, 250, 350 F-Series	85-86	5.0	V-8	71313	
Ford	150, 250, 350 F-Series	11-13	3.5 T	V-6	74485	
Ford	150, 250, 350 F-Series	11-13	3.7	V-6	74484	
Ford	150, 250, 350 F-Series	97-10	4.2	V-6	71313	
Ford	150, 250, 350 F-Series	97-10	4.6	V-8	71313	
Ford	150, 250, 350 F-Series	11-13	5.0	V-8	74485	
Ford	150, 250, 350 F-Series	97-10	5.4	V-8	71313	
Ford	150, 250, 350 F-Series	11-13	6.2	V-8	74485	
Ford	150, 250, 350 F-Series	97-10	6.8	V-10	71313	
Ford	Freestar	04-07	all	V-6	71313	
Ford	Festiva	88-93	1.3	I-4	71317	
Ford	Fiesta	11-13	1.6	I-4	74484	
Ford	Flex	08-13	3.5	I-4	74485	
Ford	Flex	10-13	3.5 T	I-4	74485	
Ford	Focus	00-04	2.0	I-4	74484	
Ford	Focus	05-13	2.0	I-4	74484	
Ford	Focus	13	2.0 T	I-4	74484	
Ford	Focus	03-07	2.3	I-4	74484	
Ford	Fusion	13	1.6 T	I-4	74484	
Ford	Fusion	13	2.0	I-4	74484	
Ford	Fusion	06-09	2.3	I-4	74484	
Ford	Fusion	10-13	2.5	I-4	74484	

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Ford	Fusion	06-12	3.0	V-6	74484	
Ford	Fusion	10-12	3.5	V-6	74485	
Ford	Mustang	11-13	3.7	V-6	74485	
Ford	Mustang	99-04	3.8	V-6	71313	
Ford	Mustang	05-10	4.0	V-6	74484	
Ford	Mustang	96-10	4.6	V-8	71313	
Ford	Mustang	11-13	5.0	V-8	74485	
Ford	Mustang	07-12	5.4	V-8	74485	
Ford	Probe	83-92	2.2	I-4	71317	
Ford	Ranger	89-01	all	I-4	71313	
Ford	Ranger	89-11	all	V-6	71313	
Ford	Ranger	01-13	2.3	I-4	74484	
Ford	Taurus	13	2.0 T	I-4	74484	
Ford	Taurus	86-91	2.5	I-4	71313	
Ford	Taurus	86-95	3.0	V-6	74485	
Ford	Taurus	88-95	3.8	V-6	74485	
Ford	Taurus	08-13	3.5	V-6	74485	
Ford	Taurus	08-13	3.5 T	V-6	74485	
Ford	Taurus X	08-09	3.5	V-6	74485	
Ford	Taurus	96-07	3.0	V-6	74485	
Ford	Tempo	85-87	2.3	I-4	74484	
Ford	Transit Connect	10-13	2.0	I-4	74484	
GEO						
Geo	Metro	89-97	all	I-3	71317	
Geo	Metro	89-97	all	I-4	71317	
Geo	Prizm	97	all	I-4	74484	
Geo	Prizm	89-96	all	I-4	74432	
Geo	Spectrum	89	1.5	I-4	74432	
Geo	Storm	90-93	all	I-4	71308, 71330	
Geo	Tracker	94-97	1.6	I-4	74471	
Geo	Tracker, TBI	89-95	1.6	I-4	74431	
GMC						
GMC	all, except TBI	85-09	all	all		71318, 74852
GMC	Canyon	07-13	all	I-4	74485	
GMC	Canyon	07-13	all	I-5	74485	

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
GMC	Canyon	07-13	all	V-8	74485	
GMC	Envoy	98-09	4.2	I-6	74485	
GMC	Envoy	98-09	5.3	V-8	74485	
GMC	Sierra	05-13	all	V-6	74485	
GMC	Sierra	05-13	all	V-8	74485	
GMC	Savana	05-13	all	V-6	74485	
GMC	Savana	05-13	all	V-8	74485	
GMC	Sonoma	94-03	2.2	I-4	74485	
GMC	Terrain	10-13	2.4	I-4		71318, 74852
GMC	Terrain	10-13	3.0	V-6		71318, 74852
GMC	Terrain	13	3.6	V-6		71318, 74852
GMC	Yukon	06-13	all	V-8	74484	
HONDA						
Honda	Accord	85-97	all	I-4	74431	
Honda	Accord	98-02	all	I-4	74426	
Honda	Accord	03-07	2.4	I-4	74484	
Honda	Accord	03-07	3.0	V-6	74484	
Honda	Accord	08-13	2.4	I-4	74484	
Honda	Accord	08-13	3.5	V-6	74484	
Honda	Civic	92-95	1.6	I-4	74431	
Honda	Civic	97-00	1.6	I-4	74435	
Honda	Civic	01-12	1.6, 1.8	I-4	74499	
Honda	Civic	01-12	2.0, 2.4	I-4	74484	
Honda	Crosstour	10-13	3.5	V-6	74484	
Honda	CR-V	97-04	all	I-4	74435	
Honda	CR-V	05-12	all	I-4	74484	
Honda	CR-Z	11-13	1.5	I-4	74499	
Honda	del Sol	93-96	all	I-4	74431	
Honda	del Sol	96-97	1.6	I-4	74435	
Honda	Element	03-11	2.4	I-4	74484	
Honda	Fit	07-13	1.5	I-4	74499	
Honda	Insight	00-06	1.0	I-3	74435	
Honda	Insight	10-12	1.3	I-4	74499	
Honda	Odyssey	95-96	2.2	I-4	74431	
Honda	Odyssey	97-98	all	I-4	74435	
Honda	Odyssey	99-04	3.5	V-6	74426	

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Honda	Odyssey	05-10	3.5	V-6	74484	
Honda	Odyssey	05-10	3.5	V-6	74484	
Honda	Odyssey	11-13	3.5	V-6	74484	
Honda	Passport	94-96	2.7	I-4	71317	
Honda	Passport	94-02	3.2	V-6		71318, 74852
Honda	Pilot	03-04	3.5	V-6	74435	
Honda	Pilot	05-13	3.5	V-6	74484	
Honda	Prelude	85-96	all	I-4	74431	
Honda	Prelude	97-01	2.2	I-4	74435	
Honda	Ridgeline	05-13	3.5	V-6	74484	
Honda	S2000	00-05	2.0	I-4	74426	
Honda	S2000	06-09	2.2	I-4	74435	
HUMMER						
Hummer	all, except TBI	93-08	all	V-8		71318, 74852
Hummer	H2	02-09	all	V-8		71318, 74852
Hummer	H3	06-10	3.7	I-5		71318, 74852
Hummer	H3	08-10	5.3	V-8		71318, 74852
HYUNDAI						
Hyundai	all, except TBI	04-10	all	all	71321	
Hyundai	Accent	95-02	all	I-4	74435	
Hyundai	Accent	02-05	1.6	I-4	71321	
Hyundai	Accent	06-11	1.6	I-4	71321	
Hyundai	Accent	12-13	1.6	I-4	74484	
Hyundai	Elantra	92-95	all	I-4	74435	
Hyundai	Elantra	96-03	all	I-4	71321	
Hyundai	Elantra	00-06	2.0	I-4	71321	
Hyundai	Elantra	06-10	2.0	I-4	71321	
Hyundai	Elantra	11-13	1.8	I-4	71321	
Hyundai	Elantra	10-13	2.0	I-4	71321	
Hyundai	Equus	11	4.6	V-8	71321	
Hyundai	Equus	12-13	5.0	V-8	74484	
Hyundai	Excel	90-94	1.5	I-4	74435	
Hyundai	Genesis	09-12	3.8	V-6	71321	
Hyundai	Genesis	09-12	4.6	V-8	71321	
Hyundai	Genesis	12	5.0	V-8	74484	

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Hyundai	Genesis Coupe	10-13	2.0 T	I-4	71321	
Hyundai	Genesis Coupe	10-13	3.8	V-6	71321	
Hyundai	Santa Fe	01-06	2.4	I-4	71321	
Hyundai	Santa Fe	01-06	all	V-6	71321	
Hyundai	Santa Fe	10-12	2.4	I-4	71321	
Hyundai	Santa Fe	07-09	2.7	V-6	71321	
Hyundai	Santa Fe	07-09	3.3	V-6	71321	
Hyundai	Santa Fe	10-12	3.5	V-6	71321	
Hyundai	Scoupe	91-95	1.5	I-4	74435	
Hyundai	Sonata	89-98	all	I-4	74435	
Hyundai	Sonata	89-98	all	V-6	74435	
Hyundai	Sonata	92-03	all	I-4	71305, 71329	
Hyundai	Sonata	92-03	all	V-6	71305, 71329	
Hyundai	Sonata	04-10	all	I-4	71321	
Hyundai	Sonata	04-10	all	V-6	71321	
Hyundai	Sonata	11-13	2.0 T	I-4	74484	
Hyundai	Sonata	11-13	2.4	I-4	71321	
Hyundai	Sonata	06-10	3.3	V-6	71321	
Hyundai	Tiburon	97-01	all	I-4	71305, 71329	
Hyundai	Tiburon	03-08	all	I-4	71321	
Hyundai	Tiburon	03-08	all	V-6	71321	
Hyundai	Tucson	05-13	2.0	I-4	71321	
Hyundai	Tucson	10-13	2.4	I-4	71321	
Hyundai	Tucson	05-09	2.7	I-4	71321	
Hyundai	Veloster	12-13	1.6	I-4	74484	
Hyundai	Veracruz	07-12	3.8	V-6	71321	
Hyundai	XG300	01	3.0	V-6	71321	
Hyundai	XG350	02-04	3.5	V-6	71321	
INFINITI						
Infiniti	EX35	08-12	3.5	V-6	71306	
Infiniti	FX35	03-12	3.5	V-6	71306	
Infiniti	FX45	03-08	4.5	V-8	71306	
Infiniti	FX50	09-13	5.0	V-8	71306	
Infiniti	G20	91-02	2.0	I-4	71317	
Infiniti	G25	11-12	2.5	V-6	71306	

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Infiniti	G35	03-08	3.5	V-6	71306	
Infiniti	G37	08-13	3.7	V-6	71306	
Infiniti	I30	96-01	3.0	V-6	71317	
Infiniti	I35	02-04	3.5	V-6	71306	
Infiniti	J30	93-97	3.0	V-6	71317	
Infiniti	JX35	13	3.5	V-6	71306	
Infiniti	M30	90-92	3.0	V-6	71317	
Infiniti	M45	03-10	4.5	V-8	71308, 71330	
Infiniti	M35	06-10	3.5	V-6	71306	
Infiniti	M37	11-13	3.7	V-6	71306	
Infiniti	M45	06-10	4.5	V-8	71306	
Infiniti	M56	11-13	5.6	V-8	74484	
Infiniti	Q45	90-01	all	V-8	71317	
Infiniti	Q45	02-04	4.5	V-8	71308, 71330	
Infiniti	QX4	97-03	all	V-6	71308, 71330	
Infiniti	QX56	04-12	5.6	V-8	71308, 71330	
ISUZU						
Isuzu	Amigo	89-94	2.6	I-4	71317	
Isuzu	Amigo	98-04	all	I-4		71318, 74852
Isuzu	Amigo	98-04	all	V-6		71318, 74852
Isuzu	Ascender	03-08	all	I-6		71318, 74852
Isuzu	Ascender	03-08	all	V-8		71318, 74852
Isuzu	Axiom	02-04	3.5	V-6		71318, 74852
Isuzu	Hombre	96-00	2.2	I-4	74485	
Isuzu	Hombre	97-00	4.3	V-6		71318, 74852
Isuzu	i-280	06	2.8	I-4		71318, 74852
Isuzu	i-280	07-09	2.9	I-4		71318, 74852
Isuzu	i-370	06-'09	3.7	I-5		71318, 74852
Isuzu	I-Mark	88-89	all	I-4	71317	
Isuzu	Impulse	83-92	all	I-4	71317	
Isuzu	Oasis	96-97	2.2	I-4	74431	
Isuzu	Oasis	98-99	2.3	I-4	74435	
Isuzu	Pickup	88-95	all	I-4	71317	
Isuzu	Rodeo	91-97	2.6	I-4	71317	
Isuzu	Rodeo	98-03	2.2	I-4	74485	
Isuzu	Rodeo	93-04	3.2	V-6		71318, 74852

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Isuzu	Rodeo Sport	01-03	2.2	I-4	74485	
Isuzu	Rodeo Sport	01-03	3.2	V-6		71318, 74852
Jaguar	XKR	95-97	4.0	I-6	71305, 71329	
Isuzu	Stylus	91-93	1.6	I-4	71317	
Isuzu	Trooper	88-91	2.6	I-4	71317	
Isuzu	Trooper	92-02	all	V-6		71318, 74852
Isuzu	VehiCROSS	99-01	3.5	V-6		71318, 74852
JAGUAR						
Jaguar	S-Type	00-05	all	V-6		71319, 74853
Jaguar	S-Type	00-05	all	V-8		71319, 74853
Jaguar	S-Type	06-09	all	V-6	71313	
Jaguar	S-Type	06-09	all	V-8	71313	
Jaguar	Vanden Plas	82-87	4.2	I-6	71317	
Jaguar	Vanden Plas	88-97	all	I-6	71305, 71329	
Jaguar	Vanden Plas	88-97	all	V-12	71305, 71329	
Jaguar	Vanden Plas	98-04	all	V-8		71319, 74853
Jaguar	XF	09-10	4.2	V-8	71313	
Jaguar	XF	09	4.2 SC	V-8	71313	
Jaguar	XJ12	75-96	all	V-12	71317	
Jaguar	XJ6	78-87	all	I-6	71317	
Jaguar	XJ6	88-96	all	I-6	71305, 71329	
Jaguar	XJ8	98-05	all	V-8		71319, 74853
Jaguar	XJ8	06-09	all	V-8	71313	
Jaguar	XJR	95-05	all	V-8		71319, 74853
Jaguar	XJR	06-09	all	V-8	71313	
Jaguar	XJR-S	93	6.0	V-12	71317	
Jaguar	XJS	76-95	all	V-12	71317	
Jaguar	XJS	92-96	4.0	I-6	71305, 71329	
Jaguar	XK	07-09	4.2	V-8		71318, 74852
Jaguar	XK8	97-05	all	V-8		71319, 74853
Jaguar	XKR	00-09	all	V-8		71319, 74853
Jaguar	X-Type	02-05	all	V-6		71319, 74853
Jaguar	X-Type	06-09	all	V-6	71313	
JEEP						
Jeep	all, except TBI	06-10	all	all	74484	
Jeep	Cherokee	86-90	2.5	I-4	71317	

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Jeep	Cherokee	87-94	all	I-6		71318, 74852
Jeep	Cherokee	95-01	all	I-6	74484, 74485	
Jeep	Comanche Pickup	86-90	2.5	I-4	71317	
Jeep	Comanche Pickup	87-92	all	all		71318, 74852
Jeep	Commander	07-10	3.7	V-6	74484	71318, 74852
Jeep	Commander	07-09	4.7	V-8	74484	71318, 74852
Jeep	Commander	07-10	5.7	V-8	74484	71318, 74852
Jeep	Compass	07-12	2.0	I-4	74484	
Jeep	Compass	07-13	2.4	I-4	74484	
Jeep	Grand Cherokee	93-04	all	I-6	74484	71318, 74852
Jeep	Grand Cherokee	93-04	all	V-8	74484	71318, 74852
Jeep	Grand Cherokee	05-10	3.7	V-6	74484	71318, 74852
Jeep	Grand Cherokee	05-09	4.7	V-8	74484	71318, 74852
Jeep	Grand Cherokee	05-13	5.7	V-8	74484	71318, 74852
Jeep	Grand Cherokee	06-10	6.1	V-8	74484	71318, 74852
Jeep	Grand Wagoneer	93	5.2	V-8	74484	71318, 74852
Jeep	Liberty	01-05	2.4	I-4	74484	
Jeep	Liberty	01-12	3.7	V-6	74484	71318, 74852
Jeep	Patriot	07-12	2.0	I-4	74484	
Jeep	Patriot	07-13	2.4	I-4	74484	
Jeep	Wagoneer	86-87	2.5	I-4	71317	
Jeep	Wagoneer	87-90	4.0	I-6	74484	71318, 74852
Jeep	Wrangler	87-90	2.5	I-4	71317	
Jeep	Wrangler	91-06	all	I-4	74484	71318, 74852
Jeep	Wrangler	91-06	all	I-6	74484	71318, 74852
Jeep	Wrangler	07-11	3.8	V-6	74484	
Jeep	Wrangler	12-13	3.6	V-6	74484	
KIA						
Kia	Amanti	04-10	all	V-6	71306	
Kia	Forte	10-13	2.0	I-4	71306	

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Kia	Forte	10-13	2.4	I-4	71306	
Kia	Optima	01-10	all	I-4	71306	
Kia	Optima	01-10	all	V-6	71306	
Kia	Optima	11-13	2.0 T	I-4	74484	
Kia	Optima	11-13	2.4	I-4	74484	
Kia	Rio	01-02	1.5	I-4	74484	
Kia	Rio	03-05	1.6	I-4	74484	71319, 74853
Kia	Rio	05-13	1.6	I-4	71306	
Kia	Rondo	07-12	all	I-4	71306	
Kia	Rondo	07-12	2.7	V-6	71306	
Kia	Sedona	02-12	all	V-6	71306	
Kia	Sephia	93-97	all	I-4	71317	
Kia	Sephia	98-01	1.8	I-4		71319, 74853
Kia	Sorento	03-09	all	V-6	71306	
Kia	Sorento	11-13	2.4	I-4	71306	
Kia	Sorento	11-13	3.5	V-6	71306	
Kia	Soul	10-13	1.6	I-4	71306	
Kia	Soul	10-13	2.0	I-4	71306	
Kia	Spectra	00-10	all	I-4	71306	
Kia	Sportage	95-97	2.0	I-4	71317	
Kia	Sportage	98-10	2.0	I-4	74484	
Kia	Sportage	11-13	2.0 T	I-4	74484	
Kia	Sportage	13	2.4	I-4	71306	
Kia	Sportage	05-10	2.7	V-6	71306	
LAND ROVER						
Land Rover	Defender 110	93	3.9	V-8	71305, 71329	
Land Rover	Defender 90	94-97	all	V-8	71305, 71329	
Land Rover	Discovery	94-99, 03-04	all	V-8	71305, 71329	
Land Rover	Discovery Series II	99-02	all	V-8		71318, 74852
Land Rover	Freelander	02-04	2.5	V-6		71318, 74852
Land Rover	LR2	06-12	all	I-4	71313	
Land Rover	LR2	06-12	all	V-6	71313	
Land Rover	LR2	13	2.0 T	I-4	74484	
Land Rover	LR3	05-10	4.0	V-6		71319, 74853
Land Rover	LR3	05-10	4.4	V-8	71313	

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Land Rover	Range Rover	87-91	all	V-8	71317	
Land Rover	Range Rover	92-02	4.6	V-8	71305, 71329	
Land Rover	Range Rover	06-09	4.2 SC	V-8	74484	
Land Rover	Range Rover	02-06	4.4	V-8	74484	71319, 74853
Land Rover	Range Rover	06-09	4.4	V-8		71319, 74853
Land Rover	Range Rover Evoque	12-13	2.0 T	I-4	74484	
LEXUS						
Lexus	ES250	90-91	2.5	V-6	74435	
Lexus	ES300	92-96	3.0	V-6	74434	
Lexus	ES300	97-03	3.0	V-6	74484	
Lexus	ES300H	13	2.5	I-4	74484	
Lexus	ES330	04-05	3.3	V-6	74434	
Lexus	ES330	06	3.3	V-6	74484	
Lexus	ES350	07-13	3.5	V-6	74484	
Lexus	GS300	93-04	3.0	I-6	74434	
Lexus	GS350	07-13	3.5	V-6	74484	
Lexus	GS400	98-00	4.0	V-8	74435	
Lexus	GS430	01-04	4.3	V-8	71306	
Lexus	GS450	07	4.5	V-8	74484	
Lexus	GS450H	07-13	3.5	V-6	74484	
Lexus	GS460	08-13	4.6	V-8	74484	
Lexus	GX460	10-13	4.6	V-8	74484	
Lexus	GX470	03-09	4.7	V-8	74434	
Lexus	IS F	08-13	5.0	V-8	74484	
Lexus	IS250	06-13	2.5	V-6	74484	
Lexus	IS300	01-05	3.0	I-6	74434	
Lexus	IS350	06-13	3.5	V-6	74484	
Lexus	LS400	90-00	4.0	V-8	74435	
Lexus	LS430	01-04	4.3	V-8	74434	
Lexus	LS460	07-13	4.6	V-8	74484	
Lexus	LS600H	08-13	5.0	V-8	74484	
Lexus	LX450	96-97	4.5	I-6	74434	
Lexus	LX470	98-04	4.7	V-8	74434	
Lexus	LX570	08-13	5.0	V-8	74484	
Lexus	RX300	99-03	3.0	V-6	74484	

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Lexus	RX330	05-06	3.3	V-6	74484	
Lexus	RX350	07-13	3.5	V-6	74484	
Lexus	RX400H	06-09	3.3	V-6	74484	
Lexus	RX450H	10-13	3.5	V-6	74484	
Lexus	SC300	92-00	3.0	I-6	74434	
Lexus	SC400	92-00	4.0	V-8	74435	
Lexus	SC430	02-08	4.3	V-8	74434	
LINCOLN						
Lincoln	all	80-04	all	all		71319, 74853
Lincoln	all	05-09	all	all	74484	
Lincoln	Aviator	03-04	4.6	V-8	71313	
Lincoln	MKS	10-13	3.5 T	V-6	74485	
Lincoln	MKS	09-13	3.7	V-6	74485	
Lincoln	MKT	10-13	3.5 T	V-6	74485	
Lincoln	MKT	10-13	3.7	V-6	74485	
Lincoln	MKX, MKZ	07-09	3.5	V-6	74485	
Lincoln	MKX, MKZ	10-13	3.7	V-6	74485	
Lincoln	MKZ	10-12	3.5	V-6	74485	
Lincoln	MKZ	13	2.0	I-4	74484	
Lincoln	MKZ	13	2.0 T	I-4	74484	
Lincoln	Town Car	04-11	4.6	V-8	71313	
Lincoln	Zephyr	06	3.0	V-6	74484	
MAZDA						
Mazda	all	06-09	all	all	74484	
Mazda	2	11-13	1.5	I-4	74484	
Mazda	3	04-13	all	I-4	74484	
Mazda	3	12-13	2.0	I-4	74484	
Mazda	5	06-10	2.3	I-4	74484	
Mazda	5	12-13	2.5	I-4	74484	
Mazda	6	03-08	2.3	I-4	74484	
Mazda	6	09-13	2.5	I-4	74484	
Mazda	6	03-04	3.0	V-6	71313	
Mazda	6	09-13	3.7	V-6	74485	
Mazda	323	86-94	all	I-4	71317	
Mazda	626	84-02	all	I-4	71317	
Mazda	626	84-02	all	V-6	71317	

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Mazda	929	88-95	all	I-4	71317	
Mazda	929	88-95	all	V-6	71317	
Mazda	B2000	84, 86-87	2.0	I-4	71317	
Mazda	B2200	87-93	2.2	I-4	71317	
Mazda	B2300	94-97	2.3	I-4		71319, 74853
Mazda	B2300	02-09	2.3	I-4	74484	71319, 74853
Mazda	B2500	98-01	2.5	I-4		71319, 74853
Mazda	B2600	87-93	2.6	I-4	71317	
Mazda	B3000	94-09	3.0	V-6		71319, 74853
Mazda	B4000	94-09	4.0	V-6		71319, 74853
Mazda	CX-5	13	2.0	I-4	74484	
Mazda	CX-7	07-12	2.3 T	I-4	74484	
Mazda	CX-7	10-12	2.5	I-4	74484	
Mazda	CX-9	07-08	3.5	V-6		71319, 74853
Mazda	CX-9	09-13	3.7	V-6	74485	71318, 74852
Mazda	Miata MX-5	90-93	1.6	I-4	71317	
Mazda	Miata MX-5	94-13	all	I-4	74484	
Mazda	Millenia	95-97	all	V-6	71317	
Mazda	Millenia	98-02	all	V-6	74484	
Mazda	MPV	89-98, 00-06	all	I-4	71317	
Mazda	MPV	89-98, 00-06	all	V-6	71317	
Mazda	MX-3	92-95	all	I-4	71317	
Mazda	MX-3	92-95	all	V-6	71317	
Mazda	MX-6	88-97	all	I-4	71317	
Mazda	MX-6	88-97	all	V-6	71317	
Mazda	Navajo	91-94	4.0	V-6		71319, 74853
Mazda	Protege	90-03	all	I-4	71317	
Mazda	Protege5	02-03	all	I-4	71317	
Mazda	RX-7	84-95	all	R-2	71317	
Mazda	RX-8	04-11	all	R-2	74484	
Mazda	Tribute	01-04	2.0	I-4		71319, 74853
Mazda	Tribute	01-11	3.0	V-6	74484	
MERCEDES-BENZ						
Mercedes-Benz	all	81-13	all	I-4		71318, 74852

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Mercedes-Benz	all	81-13	all	I-6		71318, 74852
Mercedes-Benz	all	81-13	all	V-6		71318, 74852
Mercedes-Benz	all	81-13	all	V-8		71318, 74852
Mercedes-Benz	all	81-13	all	V-12		71318, 74852
MERCURY						
Mercury	Capri	83-86	all	I-4		71319, 74853
Mercury	Capri	83-86	5.0	V-8		71319, 74853
Mercury	Capri (CFI)	83-85	5.0	V-8	74484	71319, 74853
Mercury	Capri	91-94	1.6	I-4	71317	
Mercury	Cougar	83-86	2.3	I-4		71319, 74853
Mercury	Cougar	83-97	3.8	V-6		71319, 74853
Mercury	Cougar	83-97	all	V-8		71319, 74853
Mercury	Cougar (CFI)	83-97	5.0	V-8	74484	71319, 74853
Mercury	Cougar	99-02	2.0	I-4		71319, 74853
Mercury	Cougar	99-02	2.5	V-6		71319, 74853
Mercury	Grand Marquis	83-96	all	V-8		71319, 74853
Mercury	Grand Marquis	92-11	4.6	V-8	71313	
Mercury	LN7	83	1.6	I-4		71319, 74853
Mercury	Lynx	83-87	all	I-4		71319, 74853
Mercury	Lynx	87	1.6	I-4	71317	
Mercury	Marauder	03-04	4.6	V-8	71313	71319, 74853
Mercury	Mariner	05-11	all	I-4	74484	
Mercury	Mariner	05-11	all	V-6	74484	
Mercury	Marquis	84-86	3.8	V-6		71319, 74853
Mercury	Milan	06-11	all	I-4	74484	
Mercury	Milan	06-11	3.0	V-6	74484	
Mercury	Montego	05-07	3.0	V-6		71319, 74853
Mercury	Monterey	04-07	4.2	V-6	71313	
Mercury	Mountaineer	97-05	all	I-4		71319, 74853
Mercury	Mountaineer	97-05	all	V-6		71319, 74853
Mercury	Mountaineer	97-05	all	V-8		71319, 74853
Mercury	Mountaineer	02-10	4.0	V-6	74484	

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Mercury	Mountaineer	02-10	4.6	V-8	71313	
Mercury	Mystique	95-00	2.0	I-4		71319, 74853
Mercury	Mystique	95-00	2.5	V-6		71319, 74853
Mercury	Sable	88-95	3.8	V-6		71319, 74853
Mercury	Sable	96-05	3.0	V-6	74485	
Mercury	Sable	86-05	all	V-6	71313	
Mercury	Sable	08-09	3.5	V-6	74485	
Mercury	Topaz	85-87	2.3	I-4	74484	
Mercury	Topaz	88-94	2.3	I-4		71319, 74853
Mercury	Topaz	88-94	3.0	V-6		71319, 74853
Mercury	Tracer	88-89	1.6	I-4	71317	
Mercury	Tracer	91-96	1.8	I-4	74484	
Mercury	Tracer	91-99	all	I-4		71319, 74853
Mercury	Villager	93-02	all	V-6	71317	
MERCUR						
Merkur	Scorpio	88-89	2.9	V-6		71319, 74853
Merkur	XR4Ti	85-89	2.3	I-4		71319, 74853
MINI						
MINI	Cooper	02-13	1.6	I-4	74484	71319, 74853
MINI	Countryman	11-13	1.6	I-4	74484	71319, 74853
Mitsubishi	3000GT	91-99	all	V-6	71321	
Mitsubishi	Cordia	84-88	1.8	I-4	74435	
Mitsubishi	Diamante	92-96	3.0	V-6	74435	
Mitsubishi	Diamante	97-05	3.5	V-6	74484	
Mitsubishi	Endeavor	04-11	3.8	V-6	71321, 74484	
Mitsubishi	Eclipse	90-94	1.8	I-4	74435	
Mitsubishi	Eclipse	90-99	2.0 T	I-4	74435	
Mitsubishi	Eclipse	00-12	2.4	I-4		71318, 74852
Mitsubishi	Eclipse	00-05	3.0	V-6	71321	
Mitsubishi	Expo	92-95	all	I-4	74435	
Mitsubishi	Galant	85-01	all	I-4	74435	
Mitsubishi	Galant	94-12	3.0	V-6	71321	
Mitsubishi	Galant	04-12	2.4	I-4	74484	
Mitsubishi	Lancer	02-06	all	I-4	74484	
Mitsubishi	Lancer	07-13	2.0	I-4	74484	
Mitsubishi	Lancer	07-13	2.0 T	I-4	74484	

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Mitsubishi	Lancer	07-13	2.4	I-4	74484	
Mitsubishi	Mirage	89-96	1.5	I-4	74435	
Mitsubishi	Mirage	97-02	1.5	I-4	71321	
Mitsubishi	Mirage	85-92	1.6	I-4	74435	
Mitsubishi	Mirage	93-96	1.8	I-4	74435	
Mitsubishi	Mirage	97-'02	1.8	I-4	71321	
Mitsubishi	Montero	84-06	all	V-6	71321	
Mitsubishi	Montero Sport	97-06	all	V-6	71321	
Mitsubishi	Outlander	03-06	2.4	I-4	71321	
Mitsubishi	Outlander Sport	11-13	2.0	I-4	74484	
Mitsubishi	Outlander	07-13	2.4	I-4	74484	
Mitsubishi	Outlander	07-13	3.0	V-6	74484	
Mitsubishi	Pickup	84-96	all	I-4	71321	
Mitsubishi	Pickup	84-96	all	V-6	71321	
Mitsubishi	Precis	87-94	1.5	I-4	74435	
Mitsubishi	Sigma	89-90	3.0	V-6	74435	
Mitsubishi	Starion	84-89	2.6	I-4	74435	
Mitsubishi	Tredia	84-88	1.8	I-4	74435	
NISSAN						
Nissan	200SX	84-88, 95-98	all	I-4	71317	
Nissan	240SX	89-98	all	I-4	71317	
Nissan	300ZX	84-96	all	V-6	71317	
Nissan	350Z	03-09	3.5	V-6	71306	
Nissan	370Z	09-13	3.7	V-6	71306	
Nissan	Altima	93-01	2.4	I-4	71317	
Nissan	Altima	02-08	2.5	I-4	74484	
Nissan	Altima	02-12	3.5	V-6	71306	
Nissan	Armada	04-13	5.6	V-8	74484	
Nissan	Axxess	90	2.4	I-4	71317	
Nissan	Cube	09-13	1.8	I-4	74484	
Nissan	Frontier	98-04	2.4	I-4	71317	
Nissan	Frontier	99-04	3.3	V-6	71306	
Nissan	Frontier	05-12	2.5	I-4	74484	
Nissan	Frontier	05-12	4.0	V-6	74484	
Nissan	GT-R	09-13	3.8 T	V-6	74485	

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Nissan	Juke	11-13	1.6 T	I-4	74484	
Nissan	Maxima	82-84	2.4	I-4	71317	
Nissan	Maxima	85-01	3.0	V-6	71317	
Nissan	Maxima	02-04	3.5	V-6	71306	
Nissan	Maxima	05-13	3.5	V-6	74484	
Nissan	Minivan	87-88, 90	all	I-4	71317	
Nissan	Murano	03-04	3.5	V-6	71306	
Nissan	NX	91-93	all	I-4	71317	
Nissan	NV1500,2500	12	4.0	V-6	74484	
Nissan	NV2500,3500	12	5.6	V-8	74484	
Nissan	Pathfinder	87-89	2.4	I-4	71317	
Nissan	Pathfinder	87-95	3.0	V-6	71317	
Nissan	Pathfinder	96-00	3.3	V-6	71317	
Nissan	Pathfinder	01-05	3.5	V-6	71306	
Nissan	Pathfinder	05-12	4.0	V-6	74484	
Nissan	Pathfinder	04, 08-12	5.6	V-8	71306	
Nissan	Pickup	84-97	all	I-4	71317	
Nissan	Pickup	84-97	all	V-6	71317	
Nissan	Pulsar	84-90	all	I-4	71317	
Nissan	Quest	93-98	3.0	V-6	71317	
Nissan	Quest	99-02, 04	3.3	V-6	71306	
Nissan	Quest	04-13	3.5	V-6	74484	
Nissan	Rogue	08-13	2.5	I-4	74484	
Nissan	Sentra	02-04	2.5	I-4	74484	
Nissan	Sentra	84-04	1.6	I-4	71317	
Nissan	Sentra	84-04	1.8	I-4	71317	
Nissan	Sentra	84-04	2.0	I-4	71317	
Nissan	Stanza	84-92	all	I-4	71317	
Nissan	Titan	04-13	5.6	V-8	71306	
Nissan	Versa	07-13	1.8	I-4	74484	
Nissan	Xterra	00-04	2.4	I-4	71317	
Nissan	Xterra	02-04	3.3	V-6	71306	
OLDSMOBILE						
Oldsmobile	all, except TBI	84-04	all	all		71318, 74852
Oldsmobile	Cutlass Ciera	93-96	2.2	I-4	74485	
PEUGEOT						

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Peugeot	405	89-91	1.9	I-4	71317	
Peugeot	505	84-91	all	I-4	71317	
Peugeot	505	84-91	all	V-6	71317	
PLYMOUTH						
Plymouth	Acclaim	89-91	2.5 T	I-4		71318, 74852
Plymouth	Acclaim	89-90	all	I-4	71317	
Plymouth	Acclaim	89-90	all	V-6	71317	
Plymouth	Acclaim	91-95	all	I-4	74484	
Plymouth	Acclaim	91-95	all	V-6	74484	
Plymouth	Breeze	96-00	all	I-4		71318, 74852
Plymouth	Caravelle	85-88	2.2 T	I-4		71318, 74852
Plymouth	Caravelle	85-88	all	I-4	71317	
Plymouth	Colt	84-95	all	I-4	74435	
Plymouth	Colt Vista	87-91	2.0	I-4	71321	
Plymouth	Colt Vista	92-94	1.8	I-4	74435	
Plymouth	Colt Vista	84-94	2.4	I-4	71321	
Plymouth	Grand Voyager	96-97	2.4	I-4		71318, 74852
Plymouth	Grand Voyager	88	2.5	I-4	71317	
Plymouth	Grand Voyager	95-00	3.0	V-6	74484	
Plymouth	Grand Voyager	87-95	3.0	V-6	71317	
Plymouth	Grand Voyager	90-'00	3.3	V-6		71318, 74852
Plymouth	Grand Voyager	94-'00	3.8	V-6		71318, 74852
Plymouth	Horizon	88-90	2.2	I-4	71317	
Plymouth	Laser	90-94	all	I-4	74435	
Plymouth	Neon	95-05	2.0	I-4		71318, 74852
Plymouth	Prowler	97, 99-02	3.5	V-6		71318, 74852
Plymouth	Reliant	84-89	all	I-4	71317	
Plymouth	Sundance	91-94	2.2	I-4	74484	
Plymouth	Sundance	87-90	2.2	I-4	71317	
Plymouth	Sundance	91-94	2.5	I-4	74484	
Plymouth	Sundance	88-90	2.5	I-4	71317	71318, 74852
Plymouth	Sundance	92-94	3.0	V-6		71318, 74852
Plymouth	Voyager	96-97	2.4	I-4		71318, 74852
Plymouth	Voyager	88	2.5	I-4	71317	
Plymouth	Voyager	95-00	3.0	V-6	74484	
Plymouth	Voyager	87-95	3.0	V-6	71317	

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Plymouth	Voyager	90-'00	3.3	V-6		71318, 74852
Plymouth	Voyager	94-'00	3.8	V-6		71318, 74852
PONTIAC						
Pontiac	all, except TBl	84-05	all	all		71318, 74852
Pontiac	all, except TBl	06-08	all	all	74485	
Pontiac	G3	09-10	1.6	I-4		71318, 74852
Pontiac	G5	07-09	all	I-4		71318, 74852
Pontiac	G6	06-10	2.4	I-4		71318, 74852
Pontiac	G6	05-10	all	V-6		71318, 74852
Pontiac	G8	08-09	3.6	V-6		71318, 74852
Pontiac	G8	08-09	all	V-8		71318, 74852
Pontiac	Grand Am	92-05	all	I-4	74485	
Pontiac	Grand Am	92-05	all	V-6	74485	
Pontiac	GTO	04-06	all	V-8		71318, 74852
Pontiac	Montana	05-09	3.5	V-6		71318, 74852
Pontiac	Solstice	06-09	all	I-4		71318, 74852
Pontiac	Sunbird	92-94	2.0	I-4	74485	
Pontiac	Sunfire	95-06	all	I-4	74485	
Pontiac	Torrent	06-09	3.4	V-6		71318, 74852
Pontiac	Torrent	08-09	3.6	V-6		71318, 74852
Pontiac	Vibe	03-08	1.8	I-4	74484	
Pontiac	Vibe	09-10	all	I-4	74484	
PORSCHE						
Porsche	911	84-94	all	H-6	74435	
Porsche	911	95-13	all	H-6		71318, 74852
Porsche	924	87-88	2.5	I-4	71408	
Porsche	928	78-84	all	V-8	71305, 71329	
Porsche	928	85-95	all	V-8	71408	
Porsche	944	83-91	all	I-4	71408	
Porsche	968	92-95	3.0	I-4	71408	
Porsche	Boxster	97-13	all	H-6		71318, 74852
Porsche	Carrera GT	04	5.7	V-10		71318, 74852
Porsche	Cayenne	03-13	all	V-6		71318, 74852
Porsche	Cayenne	03-13	all	V-8		71318, 74852
Porsche	Caymen	06-13	all	H-6		71318, 74852
Porsche	Panamera	10-13	all	V-6		71318, 74852

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Porsche	Panamera	10-13	all	V-8		71318, 74852
SAAB						
Saab	900	85-97	all	I-4	74435	
Saab	900	94-97	2.5	V-6		71318, 74852
Saab	900	94-98	all	I-4	74484	
Saab	9000	86-98	all	I-4	74435	
Saab	9-2X	05-06	all	H-4		71318, 74852
Saab	9-3	99-09	all	I-4		71318, 74852
Saab	9-5	99-09	all	I-4		71318, 74852
Saab	9-7X	05-09	4.2	I-6	74484	
Saab	9-7X	05-09	5.3	V-8		71318, 74852
Saab	9-7X	08-09	6.0	V-8		71318, 74852
SATURN						
Saturn	all	91-05	all	all		71318, 74852
Saturn	Astra	08-09	1.8	I-4		71318, 74852
Saturn	Aura	07-09	2.4	I-4		71318, 74852
Saturn	Aura	07-09	all	V-6		71318, 74852
Saturn	Ion	05-07	all	I-4	74485	
Saturn	Outlook	07-10	all	V-6	74485	
Saturn	Relay	05-07	all	V-6	74485	
Saturn	Sky	07-10	all	I-4	74485	
Saturn	Vue	06-10	all	I-4	74485	
Saturn	Vue	06-10	all	V-6	74485	
SCION						
Scion	FR-S	13	2.0	H-4	74484	
Scion	iQ	12-13	1.3	I-4	74484	
Scion	xA	04-06	all	I-4	74484	
Scion	xB	04-07	all	I-4	74484	
Scion	xB	07-13	all	I-4	74484	
Scion	xD	08-13	all	I-4	74484	
Scion	tC	05-13	all	I-4	74484	
SMART						
Smart	ForTwo	08-13	1.0	I-3	71317	
STERLING						
Sterling	825	87-88	2.5	V-6	74431, 74435	
Sterling	827	89-91	2.7	V-6	74431, 74435	

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
SUBARU						
Subaru	all	87-94	all	I-3	71317	
Subaru	all	83-05	all	H-4	71317	
Subaru	all	83-05	all	H-6	71317	
Subaru	all	05-13	all	H-4	74484	
Subaru	all	05-13	all	H-6	74484	
SUZUKI						
Suzuki	Aerio	02-07	all	I-4	71317	
Suzuki	Esteem	95-02	all	I-4	74471	
Suzuki	Equator	09-12	2.5	I-4	74484	
Suzuki	Equator	09-12	4.0	V-6	74484	
Suzuki	Forenza	04-05	2.0	I-4	71317	
Suzuki	Forenza	06-09	2.0	I-4	74484	
Suzuki	Grand Vitara	99-12	all	V-6	74471	
Suzuki	Kizashi	10-12	2.4	I-4	74484	
Suzuki	Reno	05-09	2.0	I-4	71317	
Suzuki	Samurai	90-95	1.3	I-4	74431	
Suzuki	Sidekick	89-95	1.6	I-4	71317	
Suzuki	Sidekick	96-98	all	I-4	74471	
Suzuki	Swift	89-01	1.3	I-4	71317	
Suzuki	SX4	7-09	2.0	I-4	71317	
Suzuki	Verona	04	2.5	V-6	74484	
Suzuki	Vitara	99-04	all	I-4	74471	
Suzuki	X-90	96-98	1.6	I-4	74471	
Suzuki	XL-7	01-05	2.7	V-6	71317	
Suzuki	XL-7	06-09	3.6	V-6		71318, 74852
TOYOTA						
Toyota	4Runner	87-95	all	all	74435	
Toyota	4Runner	96-00	2.7	I-4	71330	
Toyota	4Runner	10	2.7	I-4	74484	
Toyota	4Runner	96-02	3.4	V-6	74435	
Toyota	4Runner	03-13	4.0	V-6	74484	
Toyota	4Runner	03-08	4.7	V-8	74435	
Toyota	Avalon	13	2.4	I-4	74484	
Toyota	Avalon	95-97	3.0	V-6	74435	
Toyota	Avalon	98-04	3.0	V-6	74484	

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Toyota	Avalon	05-13	3.5	V-6	74484	
Toyota	Camry	84-01	all	I-4	74435	
Toyota	Camry	84-01	all	V-6	74435	
Toyota	Camry	02-05	all	I-4	74484	
Toyota	Camry	02-05	all	V-6	74484	
Toyota	Camry	05-10	all	I-4	74484	
Toyota	Camry	05-10	all	V-6	74484	
Toyota	Camry	11-13	all	I-4	74484	
Toyota	Camry	11-13	3.5	V-6	74484	
Toyota	Celica	84-99	all	I-4	74435	
Toyota	Celica	00-05	all	I-4	74484	
Toyota	Corolla	84-97	all	I-4	74435	
Toyota	Corolla	98-08	all	I-4	74484	
Toyota	Corolla	09-13	all	I-4	74484	
Toyota	Cressida	84-92	all	I-6	74435	
Toyota	Echo	00-05	all	I-4	74484	
Toyota	Highlander	01-13	all	I-4	74484	
Toyota	Highlander	01-13	all	V-6	74484	
Toyota	Land Cruiser	84-08	all	I-4	74435	
Toyota	Land Cruiser	84-08	all	I-6	74435	
Toyota	Land Cruiser	84-08	all	V-6	74435	
Toyota	Land Cruiser	84-08	all	V-8	74435	
Toyota	Matrix	03-08	all	I-4	74484	
Toyota	Matrix	09-13	all	I-4	74484	
Toyota	Minivan	84-89	all	I-4	74435	
Toyota	MR2	85-89, 91-95	all	I-4	74435	
Toyota	MR2 Spyder	00-05	all	I-4	74484	
Toyota	Paseo	92-97	all	I-4	74435	
Toyota	Pickup	84-95	all	I-4	74435	
Toyota	Pickup	84-95	all	V-6	74435	
Toyota	Previa	91-97	all	I-4	74435	
Toyota	Prius	01-13	1.5	I-4	74484	
Toyota	RAV4	96-'00	2.0	I-4	74435	
Toyota	RAV4	01-03	2.0	I-4	74484	
Toyota	RAV4	04-12	2.4	I-4	74484	
Toyota	RAV4	06-12	3.5	V-6	74484	

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Toyota	Sequoia	09-12	4.6	V-8	74484	
Toyota	Sequoia	01-09	4.7	V-8	74435	
Toyota	Sequoia	01-13	5.7	V-8	74484	
Toyota	Sienna	11-12	2.7	I-4	74484	
Toyota	Sienna	98-00	3.0	V-6	74435	
Toyota	Sienna	01-03	3.0	V-6	74484	
Toyota	Sienna	04-06	3.3	V-6	74484	
Toyota	Sienna	07-13	3.5	V-6	74484	
Toyota	Solara	99-01	2.2	I-4	74435	
Toyota	Solara	99-08	2.4	I-4	74484	
Toyota	Solara	99-03	3.0	V-6	74484	
Toyota	Solara	04-08	3.3	V-6	74484	
Toyota	Supra	86-98	all	I-6	74435	
Toyota	T100	93-98	all	I-4	74435	
Toyota	T100	93-98	all	V-6	74435	
Toyota	T100	93-98	all	V-8	74435	
Toyota	Tacoma	95-04	2.4	I-4	74435	
Toyota	Tacoma	95-04	2.7	I-4	71330	
Toyota	Tacoma	05-13	2.7	I-4	74484	
Toyota	Tacoma	95-07	3.4	V-6	74435	
Toyota	Tacoma	05-13	4.0	V-6	74484	
Toyota	Tercel	84-98	all	I-4	74435	
Toyota	Tundra	00-06	all	V-6	74435	
Toyota	Tundra	00-06	4.7	V-8	74435	
Toyota	Tundra	07-13	4.0	V-6	74484	
Toyota	Tundra	10-13	4.6	V-8	74484	
Toyota	Tundra	07-09	4.7	V-8	74484	
Toyota	Tundra	07-13	5.7	V-8	74484	
Toyota	Venza	09-13	2.7	I-4	74484	
Toyota	Venza	09-13	3.5	V-6	74484	
Toyota	Yaris	07-13	1.5	I-4	74484	
VOLKSWAGEN						
Volkswagen	Beetle	01-05	all	I-4	74484	
Volkswagen	Beetle	98-00, 04	all	I-4	71317	
Volkswagen	Beetle	05-13	2.5	I-5	74484	
Volkswagen	Beetle	12-13	2.0 T	I-4	74484	

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Volkswagen	Cabrio	95-02	2.0	I-4	71317	
Volkswagen	Cabriolet	85-89	1.8	I-4	74435	
Volkswagen	Cabriolet	90-95	all	I-4	71317	
Volkswagen	CC	09-13	2.0 T	I-4	74484	
Volkswagen	CC	09-13	3.6	V-6	71305, 71329	
Volkswagen	Corrado	90-95	all	I-4	71317	
Volkswagen	Corrado	90-95	all	V-6	71317	
Volkswagen	Eos	07-13	all	I-4	74484	
Volkswagen	Eos	07-13	all	V-6	74484	
Volkswagen	Eurovan	01-04	2.8	V-6	74484	
Volkswagen	Eurovan	92-00	all	I-5	71317	
Volkswagen	Eurovan	92-00	all	V-6	71317	
Volkswagen	Fox	87-90	1.8	I-4	74435	
Volkswagen	Fox	91-93	1.8	I-4	71317	
Volkswagen	Golf	87-92	all	I-4	74435	
Volkswagen	Golf	85-04	all	I-4	71317	
Volkswagen	Golf	85-04	all	V-6	71317	
Volkswagen	Golf	00-03	1.8	I-4	71305, 71329	
Volkswagen	Golf	03-06	1.8 T	I-4	74484	
Volkswagen	Golf	03-06	2.0	I-4	74484	
Volkswagen	Golf	12-13	2.0 T	I-4	74484	
Volkswagen	Golf	10-13	2.5	I-5	74484	
Volkswagen	GTI	06-13	2.0 T	I-4	74484	
Volkswagen	Jetta	87-92	all	I-4	74435	
Volkswagen	Jetta	01-03	1.8	I-4	71305, 71329	
Volkswagen	Jetta	81-04	all	I-4	71317	
Volkswagen	Jetta	81-04	2.8	V-6	71317	
Volkswagen	Jetta	13	1.4 T	I-4	74484	
Volkswagen	Jetta	05-13	2.0	I-4	74484	
Volkswagen	Jetta	05-13	2.5	I-5	74484	
Volkswagen	Phaeton	04-06	4.2	V-8	71317	
Volkswagen	Phaeton	04-06	6.0	W-12	71317	
Volkswagen	Passat	90-94	2.0	I-4	74435	
Volkswagen	Passat	91-97	all	I-4	71317	
Volkswagen	Passat	91-97	2.8	V-6	71317	
Volkswagen	Passat	98-11	all	I-4	71305, 71329	

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Volkswagen	Passat	98-11	all	V-6	71305, 71329	
Volkswagen	Passat	12-13	2.5	I-5	74484	
Volkswagen	Passat	12-13	3.6	V-6	74484	
Volkswagen	Quantum	84-88	2.2	I-5	74435	
Volkswagen	Quantum	82-85	all	I-4	71317	
Volkswagen	R32	04, 08	3.2	V-6	74484	
Volkswagen	Rabbit	06-09	2.5	I-5	74484	
Volkswagen	Routan	11-12	3.6	V-6	74484	
Volkswagen	Routan	08-10	3.8	V-6	74484	
Volkswagen	Routan	08-10	4.0	V-6	74484	
Volkswagen	Scirocco	87-89	1.8	I-4	74435	
Volkswagen	Tiguan	09-13	2.0 T	I-4	74484	
Volkswagen	Touareg	11-13	3.0 SC	V-6	74484	
Volkswagen	Touareg	04-09	3.2	V-6		71319, 74853
Volkswagen	Touareg	10-13	3.6	V-6	71305, 71329	
Volkswagen	Touareg	04-09	4.2	V-8	71317	
Volkswagen	Vanagon	86-91	2.1	H-4	71317	
VOLVO						
Volvo	all	97-10	all	all		71319, 74853
Volvo	240	83-90	2.3	I-4	71305, 71329	
Volvo	240	90-93	2.3	I-4		71319, 74853
Volvo	760	84-90	all	I-4	71305, 71329	
Volvo	780	87-90	2.8	V-6	71305, 71329	
Volvo	850	93-97	all	I-5	71329	71319, 74853
Volvo	740	85-92	2.3	I-4	71305, 71329	
Volvo	940	91-95	all	I-4	71329	71319, 74853
Volvo	C30	08-13	2.5 T	I-5		71319, 74853
Volvo	C70	06-13	2.5 T	I-5		71319, 74853
Volvo	S40	00-06	1.9 T	I-4	71329	71319, 74853
Volvo	V40	00-06	1.9 T	I-4	71329	71319, 74853
Volvo	S40	04-10	2.4	I-5		71319, 74853
Volvo	S40	04-11	2.5 T	I-5		71319, 74853
Volvo	S60	12-13	2.5 T	I-5		71319, 74853
Volvo	S80	07-10	4.4	V-8		71319, 74853
Volvo	V50	05-11	2.4	I-5		71319, 74853
Volvo	V50	05-10	2.5 T	I-5		71319, 74853

Applications Chart

MAKE	MODEL	YEAR	SIZE	TYPE	Line Adapter	Test Port Adapter
Volvo	XC70	07	2.5 T	I-5		71319, 74853
Volvo	XC90	03-06	2.5 T	I-5		71319, 74853
Volvo	XC90	03-05	2.9 T	I-6		71319, 74853
Volvo	XC90	07-13	4.4	V-8		71319, 74853
Volvo	Coupe	91	2.3	I-4	71305, 71329	
YUGO						
Yugo	Cabrio	90-91	1.3	I-4	71317	
Yugo	GV	90-91	1.3	I-4	71317	

PRESSURE CONVERSION CHART		
To convert	To	Multiply by
PSI	k/Pa	6.8946
PSI	bar	0.0689
PSI	kg/cm2	0.0703
k/Pa	PSI	0.145
k/Pa	bar	0.01
k/Pa	kg/cm2	0.0102
bar	PSI	14.504
bar	k/Pa	100
kg/cm2	PSI	14.22
kg/cm2	k/Pa	98.074
kg/cm2	bar	0.9807

METRIC CONVERSION CHART			
PSI	Bar	k/Pa	kg/cm2
0.50	0.034	3.44	0.0352
1.00	0.069	6.89	0.0703
1.25	0.086	8.62	0.0879
2.00	0.138	13.79	0.1406
5.00	0.345	34.48	0.3515
10.00	0.699	69.85	0.7030
15.00	1.034	103.43	1.0545
20.00	1.379	137.90	1.4060
25.00	1.724	172.38	1.7500
30.00	2.069	106.85	2.1090
35.00	2.143	241.33	2.4605
40.00	2.758	275.80	2.8120
50.00	3.448	344.75	3.5150
60.00	4.137	413.70	4.2180
70.00	4.827	482.65	4.9210
80.00	5.516	551.60	5.6240
90.00	6.206	620.55	6.3270
100.00	6.895	689.50	7.0300